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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/878,581	06/19/1997	ATSUSHI OHTANI	35.G1975	8324

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EXAMINER

VU, NGOC YEN T

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 10/16/2002

#27

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

08/878,581

Applicant(s)

Atsushi OHTANI et al.

Examiner

Ngoc-Yen VU

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 26, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.
- ### Disposition of Claims
- 4) ☒ Claim(s) 1, 5-8, 12, 14, 18-21, 25, 27, 31-34, 38, and 70-117 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 5-8, 12, 14, 18-21, 25, 27, 31-34, 38, and 94-117 is/are allowed.
- 6) ☒ Claim(s) 70-93 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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Response to Amendment

1. The amendments, filed on 07/26/2002, have been entered and made of record.

Response to Arguments

2. Applicant's arguments with respect to claims 70-101 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 70-71, 73, 75-79, 81 → see bottom of page 2, 83-85, 86-87, 89 and 91-93 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al. (US #5,654,756).

Regarding Claim 70, Takahashi '756 teaches in figures 6-8 an image sensing apparatus comprising a light source which emits first light (R), second light (B), and third light (G) which are different in wavelength (col. 5 lines 12+); a signal generator unit (control unit 7) which generates a trigger signal for triggering an operation of sensing one line of an image (col. 5 line 12 - col. 6 line 43); a sensing unit (photoelectric converting unit 6) which, in response to the trigger signal, outputs, in a predetermined period, a signal of one line of the image illuminated by the light source (col. 5 lines 12-62); and a light source control unit (control unit 7) which controls to emit said first, second, and third light in order in a predetermined order during the predetermined

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period by the sensing unit (see Fig. 8, read-out signal OE), and controls to stop emission of the first light (R) and to emit a predetermined light of said light source (B) when said trigger signal is generated during emission of said first light (see Fig. 8, power-on signal ON), wherein said predetermined order is the order of first (R), second (B) and third (G) light, and said predetermined light is the second light (B) (Fig. 8; see col. 5 line 62 - col. 6 line 43).

As to Claim 71, Takahashi teaches that the first light (R) is light which is first emitted at the beginning of a sensing operation performed by the sensing unit (Fig. 8, ROE).

As to Claim 73, Takahashi teaches that the light source controlling unit sequentially turns on the plurality of light sources so that the image sensing means may sense an image in a color mode (col. 5 lines 12+).

As to Claim 75, Takahashi teaches that said sensing unit outputs a signal a plurality of times during the predetermined period (Figs. 6-8; col. 5 line 12 - col. 6 line 43).

As to Claim 76, Takahashi teaches that the sensing unit outputs a signal once during the predetermined period (col. 5 line 62 - col. 6 line 43).

As to Claim 77, Takahashi teaches that the first light, the second light, and the third light are each of red light, blue light, and green light (col. 2 lines 30+).

Regarding claims 78-79, 81 and 83-85, they are method claims corresponding to the apparatus claims 70-71, 73 and 75-77. Therefore, claims 78-81 and 83-85 are analyzed and rejected as previously discussed with respect to the apparatus claims 70-73 and 75-77.

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Regarding Claim 86, Takahashi teaches a digital controller (7) inherently having a control memory in which a program is stored for controlling the color document reader. As to claims 86-87, 89 and 91-93, they are method claims corresponding to the apparatus claims 70-71, 73 and 75-77. Therefore, claims 86-87, 89 and 91-93 are analyzed and rejected as previously discussed with respect to the apparatus claims 70-71, 73 and 75-77.

Claim Rejections - 35 USC § 103

5. Claims 72, 80 and 88 are rejected under 35 USC 103(a) as being unpatentable over Takahashi '756 in view of Nagano (US # 4,731,661).

As to Claims 72, 80 and 88, the claims differs from Takahashi in that it further requires that the light source control unit controls the light sources so that the first light (R) needs a long time to turn on than the second and third light. However, it is well known in the art that red light energy requires longer integration period than the green and blue lights, as shown in Nagano '661 (See the R reflection energy in Fig. 10). In light of the teaching from Nagano, it would have been obvious to one of ordinary skill in the art to modify the image pickup apparatus taught in Takahashi by controlling the control unit (7) so that the red light needs a long time to turn on than the green and blue light because the red light energy requires longer integration period than the green and blue lights.

6. Claims 74, 82 and 90 are rejected under 35 USC 103(a) as being unpatentable over Takahashi '756 in view of Nagano '661, and further in view of Lim et al. (US # 5,532,825).

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As to Claim 74, Nagano '661 teaches that the light source controlling unit sequentially turns on the plurality of light sources but the mode of operation is a color image and not a monochrome image.

However, Lim '825 teaches arranging an image sensing device so as to sense an image in a monochromatic mode (col. 1 lines 15-21) using sequential illumination by a plurality of light sources (col. 4 lines 49-51), the Lim's device clearly being able to process its image data in such a way as to generate both color and monochrome images. It is clear from the teaching in Lim that the image data generated in response to sequential color illumination may be processed in such a way as to generate a monochromatic image. Provision of such processing in Nagano clearly would increase its utility by enabling the production of monochrome as well as color images in response to its sequential illumination operation. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to configure the Nagano device so as to sense an image in a monochromatic mode from its sequential illumination operation in order to increase the utility of the device by providing a monochromatic operating mode in addition to the color mode of operation.

As to claims 82 and 90, they are method claims corresponding to the apparatus claim 74. Therefore, claims 82 and 90 are analyzed and rejected as previously discussed with respect to the apparatus claim 82.

Allowable Subject Matter

7. Claims 1, 5-8, 12, 14, 18-21, 25, 27, 31-34, 38 and 94-117 are allowed.

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Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. **Any response to this office action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

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(for informal or draft communications, please label
"PROPOSED" or "DRAFT")


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA.,
Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ngoc-Yen Vu** whose telephone number is (703) 305-4946. The examiner can normally be reached on Mon - Fri from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reached on (703) 305-4929.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

NYV
10/11/2002


NGOC-YEN VU
PRIMARY EXAMINER
Group Art Unit 2612

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